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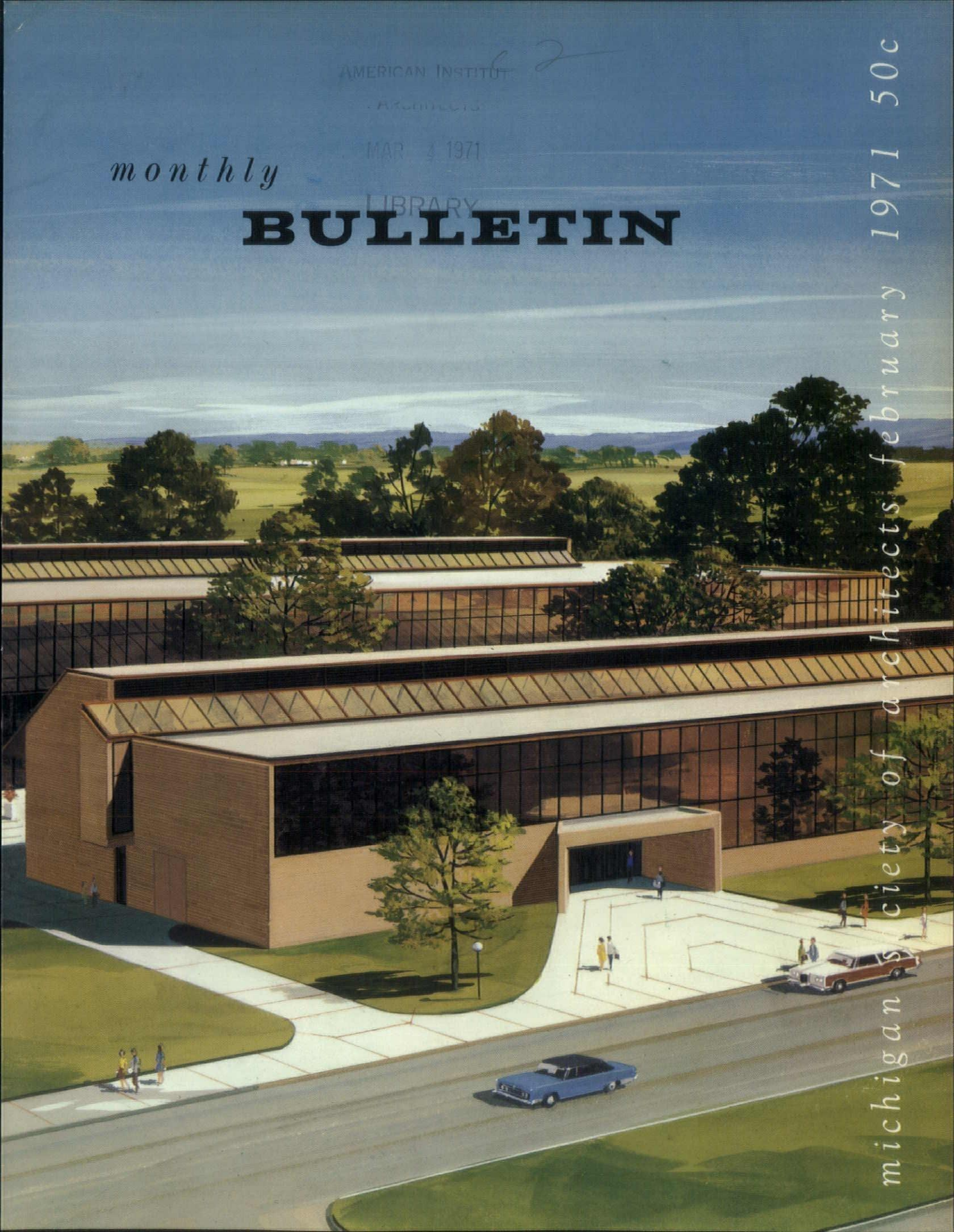
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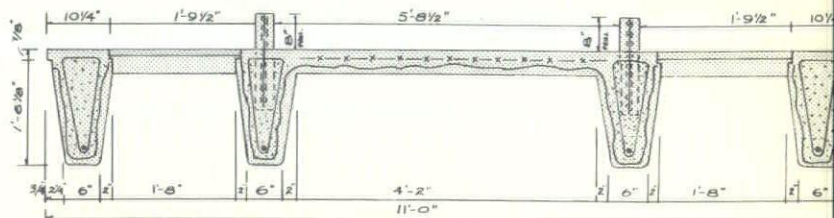
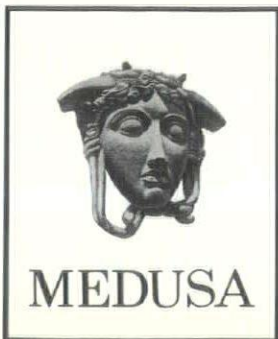
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EDITORIAL

Eleven Agonies and One Euphoria

by Charles Moore, FAIA

Architects in practice, enjoying until lately an era of unprecedented prosperity, have come in increasing numbers to the schools of architecture, seeking recruits interested in joining them for fun and profit. Increasingly, they have gone away dismayed. They have encountered schools tottering in the grip of undifferentiated agonies, and students either indifferent, utterly hostile to, or planning an instant takeover of the profession. If they went to the most prestigious schools, they will have noticed that "nobody designs anything anymore" and "nobody even makes any drawings", though they might, if they stayed long enough, have been shown some very competent posters developing a social theme. The visitor will in any case almost certainly be baffled and will in all probability be deeply offended.

It is not my purpose here to soothe away the hurts. It is, rather, to contend that the Agonies are real, but susceptible of being overcome; that if they are overcome, architectural schools won't be the same any more; and if they are not overcome, then there probably won't be very many architecture schools. My qualifications to make sweeping contentions are extensive (twenty years in a variety of architecture schools, and frequent visits to an even wider variety) but incomplete. (I'm simply too old, for instance, and too much an historian to understand the prevalent willingness to destroy all imperfect institutions.) So my contentions are incomplete too, and a panacea absent, but hopefully it will be useful anyway to enumerate the Agonies.

Agony 1: Architecture students are generally members of the younger generation, therefore on the other side of the rapidly forming barricades recently described by the Scranton Commission. That report says better than I could why the young are alienated, and what needs to be done about it.

Agony 2: "Relevance" is demanded by students and sought by schools in self-destructive frenzy. Since it is the nature and strength of the University that it is basically irrelevant, at least so far as relevance is viewed in the narrow and immediate way it is meant in the current rhetoric, our main hope is

that the frenzy will die down before destruction is complete. The whole point in having an architecture school in a university, instead of in a low-rent loft, I should think, is precisely that it does free it from immediate practical and professional concerns and grants it the distance (the irrelevance) to develop constructs useful for the long range; if so far we haven't succeeded, removing the opportunity is not likely to help much.

Agony 3: The search for "relevance", of course, is made more frantic by the general knowledge that the architect is responsible for only about ten (or five, in other accounts) percent of the building in our country, though the profession has noisily claimed responsibility for the whole physical environment, or at least the post of "leader of the team". Some candor, or at least modesty, is in order: if the architect can improve (and the schools could lead the way), the speed and cost and efficiency of his service so that most of the other 90% want it, fine. If, on the other hand, he can parlay his role as artist (who gives a view of order in reality, so as to give the viewer some perception of the order of reality, as T. S. Eliot put it) into a demonstration, so that the physical environment will be reformed by his example, then fine, too. But the casual assumption that environmental success cannot help out crown our present efforts has to go.

Agony 4: In the confusion and frustration about what the architects' job is, the ancient hierarchy which put the shape-making designer on top and demeaned the role of nearly everyone else, maintains a curious hold. Architectural educators frequently confer to note the Flexner report which revolutionized medical education half a century ago (not entirely successfully, it will quickly be pointed out, but impressively) by devising a system which distributed the kudos and the tasks among researchers, biologists, and others as well as among practitioners. A parallel distribution, the educators agree, among researchers and specialists as well as "form-givers" is needed if the architectural profession is to have the strength to take on the total-environmental task it has set for itself; but since the distribution would be lubricated by money, it hasn't yet preceded very far.

Agony 5: In the absence of that pecuniary lubrication which might better develop a complete service for archi-

fects to render to society, the fright among students about the arrogance of the designer's solution, especially for the poor and other new kinds of clients, has become explosive. "Advocacy" planning became an escape from this fright which briefly assumed most of the aspects of a panacea until it turned out that advocacy, like other design techniques, required more than just goodwill and that "holding a mirror up to the community" might have some of the effect it had on Snow White's aging adversary. The need persists for the architect himself to plan, with real facts for and with real people, not as form-giver but as form-finder.

As the architecture schools seek to respond to this need, they leave behind the time-honored design problem, which is just too simple to cope with the complexity of real situations and produces a too-easy sense of accomplishment. The alternatives, as teachers and students try to make problems "real" are not yet altogether worked out; the attempt, for instance, to pretend to do something with a real community standardly founders on the community's unwillingness thus to be played with, and the attempt really to do something with a real community introduces a time dimension dramatically at odds with the student's expectations about his own action-packed education. A better answer, I suspect, will put students in close touch with those places where a useful service is being rendered, in all its complexity, but from which they can retreat to talk and even draw and put their thoughts in order.

Agony 6: At almost every meeting of architects and architecture students, someone gets up to observe that everything said so far is meaningless because architects have no power and only design what they are told to, and that architecture schools are criminally negligent for not training students to be mayors or governors, and the hell with all this physical environment. I take these outbursts to be related to the same megalomania rooted in frustration that I noted in my second Agony: it is not clear to me why architects have any more right than anyone else (though they have as much) to political office. It is clear through that if we could more demonstrably improve the world with our works, we would have less cause to pine for other glories.

Agony 7: An undeniable hindrance

to architects' present effectiveness is the historic exclusiveness of our peer group, and the almost complete absence from it of blacks or other members of minority groups. Would-be black architects have been discouraged, overtly and because the profession hasn't promised all that much, either in social accomplishment or in personal success. (If you think architects are well off, just try fund raising among architecture school alumni). Clearly, we must welcome minorities into the field, right away. It helps, I think, that we are at the edge of the verbal culture, making things, and are therefore able to attract minority group members traditionally excluded from the nuances of a largely verbal education. And the rest of us might be nudged by the vocal minorities into greater usefulness, if we are not panicked by the cries for instant relevance.

Agony 8: The nature of the kind of progress that attends the improvement of our material standard of living is that it involves the development of continually improving tools, extending the individual's capacity to produce. Our field must be unique in the naïveté of its assumption that six or seven years of college fit one to be a draftsman, whose tools have been extended in this century largely by the introduction of the electric pencil sharpener, and whose beginning salary is one of the few authentic reminiscences of 1910 left around. The meaninglessness of most of the draftsman's tasks are recognized, and some alternatives are already in sight from computers and component manufacturers. Schools cannot persist in training people for a vanishing role, and students are already indicating dramatic resistance to any such emasculation. They should be heeded.

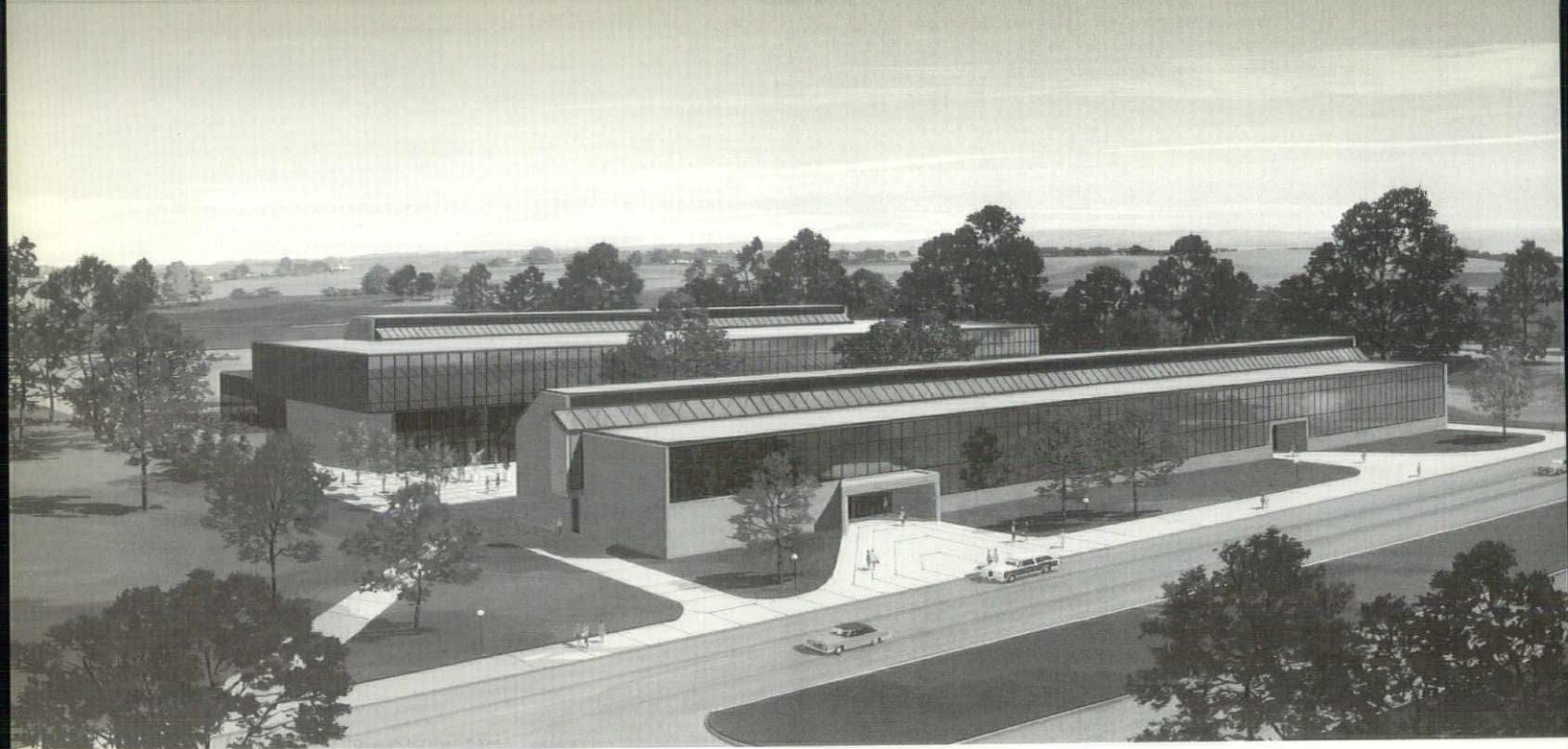
Agony 9: Any modern theory of design has, I believe, to be founded on a way to translate our well-known capacity to endow an individual product with love (to produce something correct and beautiful) into a capacity to endow the multiplied product with the same qualities. As we lavish our attention on individual works, we underemploy our draftsmen, fail to perform the task we have so noisily arrogated to ourselves of improving the whole environment, and cast real doubts on our usefulness. This has been noticed by some students.

Agony 10: The need for students to take on the complex world grows more dramatic, and the opportunity to

see it grows apace; but little advantage has yet been taken of that. For instance, since man has so often built well all over the world, surely the most potent teachers of architects are the buildings and cities which have succeeded. Increasingly, airplanes can take us, teachers and students, quickly and cheaply to anywhere; but we still depend on magic lantern shows. One of the most urgently needed architectural educational reforms, I submit (and one much worth supporting, with money) is the introduction of the real world, to work in and to see.

Agony 11: When education focuses on certification, educators note it has reached a dead end. The rocketing emphasis on the architecture school as an agent for certifying one's professional legitimacy can be found in the voices of such disparate groups as the NCARB (who want the architectural degree to be the key to registration as an architect) and militant black students (who sometimes demand quick professional degrees as a lever on power). The connection between a university degree in architecture, irrelevant in its detachment, and vital to our future because of that, and professional certification, relevant and legal and basically conservative, should now loudly be dropped.

Euphoria: With all the absurdities of a strict professional education in architecture in a changing world, we have in our province the process of *design*, that combination of research and understanding and intuition and improvisation which tries out solutions to problems in too many unknowns to be susceptible of solution by the disciplines based on logic and words. The complicated world is in need of the ministrations of the designer, not the arrogant visionary who slaps his preconceptions onto the unwilling, but the solver of the loosely structured problem, the visionary who dares to destroy constructive preconceptions to come to solutions he has to invent (and which he willing to test, with the people with whom and for whom the solutions are made). The world needs this, desperately. If we can lose the agonies attending our professional hangups about revolution, relevance, ineffectiveness, hierarchy, advocacy or arrogance, divine right, racism, inefficiency, failure to reproduce, isolation and certification, we will have left in our province one of the key tools for the solution of the world: design. And from this we can take heart. ♦



Planning A Professional Goldfish Bowl

University of Michigan
Architecture and Design
Building

When Dr. Paul Dudley White was treating President Eisenhower under the scrutiny of the entire nation, we don't doubt that at least half the cardiologists in the country entertained, privately, reservations on one or more aspects of the handling of this illustrious patient. To be thrust, suddenly, into the role of a "doctor's doctor" is to become, rightly or not, subject to the judgment of the entire profession. Something akin to this occurs in all fields of professional endeavor.

Hence, it must have been with some trepidation that the planning and design of the Architecture and Design Building at the University of Michigan was undertaken. The architect, the administrators, the faculty, and certain State officials have assumed responsibility for the single building that will house all of U of M's academic architectural activity for decades. Existing within a professional goldfish bowl, the A&D Building is destined to be the subject of analysis, debate, and perhaps second guessing, for many years.

In order, then, that the debate can begin against a background of fact, the *Monthly Bulletin* commissioned this writer (a non-architect) to make an outside, objective report on the building: how it was conceived and designed, how it is being brought into being. Interviews were conducted with the architect, Robert Swanson, with the concerned University people, Reginald Malcolmson, Dean of the College of Architecture, Robert Metcalf, Chairman of the Department of Architecture, and Douglas R. Sherman, Director of Capitol Planning; also with the most-involved members of State government, A. N. "Gus" Langius, Director of the State Buildings Division, and William C. Roege, of the Legislative Fiscal Agency.

From these interviews unfolded the story not only of how *this* project came into existence, but also of how the State of Michigan goes about acquiring *any* new building. (In fact, the A & D project, as it has developed, has become something of a "textbook solution" to the problem of submitting concepts and plans for State approvals and appropriations.) The editors of the *Bulletin* felt architects in the State of Michigan would be interested in both facets of the story.

The A & D Building actually had its beginning in the early 1950's, when the administration and faculty of the

College began to question the adequacy of the present facility. Foreseen then were the trends which have now materialized: the need for this, the only State-supported, accredited school of architecture in the State, to develop more qualified architects than permitted by the present facility; the growth of the Art Department from an adjunct of the College to a full member with a mission and existence of its own; increasing emphasis on graduate studies in Architecture and Urban Planning; the distance of the building from concomitant functions (such as computer installations which have become integral to the curriculum); changes in the curriculum of the College; and even an evolution in the method by which instruction takes place.

By 1955, a College committee had been established from among the faculty to collect data and study program needs for a new building on a more formal basis. Out of this committee emanated a series of program statements, each, in retrospect, becoming a more definitive document than its predecessors. These programs were submitted to, and studied by, the University which measured the programs against priorities for all building plans. They were not, however submitted to the State until sometime later.

After the arrival of Dean Malcolmson on the scene, in 1964, he organized a University Building Committee which evolved the ultimate program statement that was presented to the State—first in January, 1966, then in revised form in April, 1968. Thus, even before the program reached the University, and was submitted by the University to the State, it was the product of analysis and planning by a considerable body of architectural talent over more than a decade.

The program statement, in effect, tells the concerned state officials *why* the new structure is required. After an opening statement on the general economic and social importance of the College, the program details for State administrators and legislators: *Scope and Function* (growth from 375 students, to 811, with projected enrollment needs of over 1200); *Project Relationship within the University*; *Need for the A & D Building* (among the several items, an N.A.A.B. report citing relative per-student areas against schools of equal stature, i.e. 25 square feet of major studio area per student vs. 60 square feet at Yale, 38 square feet of net area per student vs. 160 at Berkeley, etc.); *Areas of the Building* (areas, capacities, and equipment or services that will be required for studios, workshop and storage, special and technical labs, classrooms, exhibition, library, faculty offices, informal meeting, research); *Use of Vacated Space* (Literature, Science and Arts will take over after renovation); *Site Features* (one exists that is ideal for additions and in nice proximity to associated teaching, research and service units); *Operating Costs* (about \$250,000 annually); *Priorities*; *Proposed Schedule* (at that time, construction was to be completed by July, 1971); *Finances* (it was considered that the Urban Planning Department might qualify the structure for some Federal assistance); and *Preliminary Plans and Specifications* (no drawings) a statement of the architectural concept of the building).

In this form, the program statement was submitted to the State for authorization to proceed on the first phase of development.

"The State," however, needs to be examined a little more closely by the architect who is interested in the development of state buildings. For the "State," as it relates to

building projects, is a complex structure of persons and organizations transcending both the administrative and legislative branches.

All requests for authorization and funds are addressed in Michigan to the Governor, through the Director of the Building Division of the Bureau of the Budget. The Governor is obligated to transmit *every* request from every agency, department, or bureau of the State to the legislature.

But the Governor is *not* beholden to *recommend* every request to the legislature. Again working through the Director of the Building Division, he assigns specific priorities to building projects and establishes each against a total budget within which he believes the State can live.

Moreover, and this is unique among all states, in Michigan the building projects are recommended to the legislature (and acted upon by them) in *phases*. That is, the first step for any building will be a "preliminary planning" stage. Only after this has been authorized, funded, completed and the results of preliminary planning reviewed by the Building Division and the legislature would they consider authorizing the second step, that might be called the "final preliminary design" phase.

In turn, this phase is completed and submitted to both branches for approval before the project is funded for the working drawings phase. The procedure is repeated again after bids have been taken and the project is ready for construction.

The "phasing" of work in this manner accrues to the State certain benefits. The administration and legislature have the opportunity, as guardians of the public purse, to review progress on each building at important intermediary stages, and to question whether their funds are being spent in the manner originally intended. They have the opportunity to stop work on a building at any check-point prior to the commencement of construction (and have done so on occasion). They are, through this method, able to control the state capital outlay budget almost to the nickel, avoiding the "growth" of projects to proportions not intended in the original appropriation.

Most important, by funding each project in steps they spread its cost over two or more fiscal years, thereby allowing buildings to be constructed on a "pay-as-you-go" basis. Almost without exception, there is no bond-financing of State buildings in Michigan. There is no "mortgaging" of future appropriations nor the additional costs of millions of dollars of interest annually.

While the phasing method of approving and funding building projects seemingly works certain hardships on the architect and the State agency concerned with the building (primarily through some delay for approval at each step), there are several redeeming aspects:

- (1) The detailed planning that is required to pass the several interrogations and examinations is work that would have to be done anyhow, although some planning and design justifications may have to be done earlier under this system than would otherwise be necessary.
- (2) The phasing system permits conflicts to arise and be resolved at the earliest possible time, before undue investments are made in time and materials. Example: the preliminary planning phase of the A & D Building called for an Architecture Library. The legislature, however, planned for an area library serving Architecture, Engineering and other colleges in the North Campus area,

so the library was scrubbed before a line was put on paper.

(3) The architect, the concerned State agency, and the State Building Division (which is the contracting client) can easily defend designs and drawings on the basis that they were approved in concept at an earlier checkpoint. Ordinarily, only departures from previous phases are subjected to strenuous interrogation.

And strenuous it is! The architect whose project phase is approved, with budget recommendations, by the Building Division, shortly finds himself across the hearing room from the Joint Capital Outlay Subcommittee of the legislature, assigned the irreverent acronym, "POC," probably by an architect who faced them ill-prepared for their penetrating questions.

JCOC is a sub-committee of *both* houses of the legislature. Consisting of the four most-senior members from the Appropriations Committee of each house, it is possibly the single most powerful group in the legislature.

Organized eight years ago, JCOC's role is to screen all requests and make specific recommendations on capital appropriations for the State. Although their recommendations must pass both Appropriations Committees, the Senate and the House, the stature of the subcommittee is such that its approvals are tantamount to passage. The *joint* subcommittee, organized in this manner, enables projects to be presented, reviewed, challenged or defended, only once in each phase. The subcommittee members have become specialists, of sorts, in appraising building plans and needs. And they are more able than separate committees to control expenditures within an overall budget framework. Further, Roege feels that the composition of the subcommittee eliminates the baser political considerations that enter such deliberations in other political arenas ("... you vote for a building in my district and I'll vote for one in yours").

Although JCOC members enjoy considerable prestige, they are not noted for delicacy in dealing with supplicants in the hearing room. Architects have come under blistering cross-examination there as have State employees, including university presidents, deans and administrators. Doug Sherman commented specifically on the questions asked, and how they penetrated directly to core issues. During presentation of the original program statement, the subcommittee challenged the building in terms of what it can produce for the State: "Why do we need more architects? How will the new building produce better architects?" The answers had better be (and were, in this instance) specific.

Roege confirms this tendency among the subcommittee members. Their mission, he explains, is seeing that the State invests wisely in all of its capital expenditures. They view buildings in terms of the functional benefits to be produced. In reviewing programs, designs or plans they are intentionally hard-nosed. Roege adds, however, that the "third degree" sometimes experienced in their presence is more a technique for driving to the heart of a program than it is a reflection on personalities or projects. He has seen architects and heads of State agencies leave the hearing room in near-panic, considering their project dead; then he has watched the subcommittee vote unanimously to approve and fund the next phase of the project.

It is out of this review-and-funding crucible (but without the panic) that the A & D Building program emerged into the preliminary planning phase. A planning fund was appropriated and Swanson Associates, Inc. was designated the architect on the project in September, 1968.

Ordinarily, "preliminary planning," as received by the Building Division and JCOC, has consisted of a series of schematics and sketches that demonstrated how the approved program can be implemented on the established site.

In the case of the A & D Building, however, a different tack was taken: one which intrigued the subcommittee with its thoroughness and appropriateness, and which cleared the way for future phases to glide through State approvals unmoled.

This new tack was a "Program Analysis and Design Criteria Analysis," undertaken by Swanson in consultation with the faculty and staff of the College of Architecture and after studies of several other Schools of Architecture.

The analysis consists of eight steps, of which five are critical to the process and deserve brief explanation:

(1) *Room and Work Station Utilization Schedule.*

Here, in effect, the analysis challenges the original program statement on the need for specific work station requirements within the proposed structure. Will they *actually* need that ceramics studio? How many hours per week will it be used: on a scheduled basis? On an unscheduled basis? How many hours in the architecture studios? Classroom #4? The lecture hall? Working with the faculty to project scheduled and unscheduled use of each productive work station in the building, and charting the utilization for each room or area, the study established that the College did, indeed, require each of the work stations delineated in the program statement. The shortest projected usage was the lecture hall (44 hours per week, of which 28 would be scheduled), and ten areas or stations (including Printmaking, Photography, Environmental & Technical Lab, and Computer Lab) would be utilized 60 or more hours per week.

(2) *Space Assignment Study.*

Here each Department and sub-department (e.g. "Sculpture") was consulted to develop an area plan that would satisfy the needs of the Department in the new building. The attempt here was not to show *where* the activity ought to be located, but what shape it ought to take — and what size it ought to be. Can this many tables and that many students, work productively within so many square feet? Should their 1800 square feet be 30 x 60, or 45 x 40 for most productive function? In several cases (the lecture hall, for one) experimentation with differing shapes led eventually to specification of different sizes than had been projected in the program statement.

But though each station or area was diagrammed in this segment of the analysis, no attempt was made to position them in relationship to one another. That is, no one sat down to "draw a building" at this stage indicating that this classroom would be next to that studio. The closest thing to positioning the elements of the building came in the next step.

(3) *Space Relationships Study.*

In a series of diagrams, all of the functional components of the new building were plotted. Each element (an architecture studio, a faculty office, painting studio, display area) was represented by a circle approximately in proportion to relative size of the area. These were grouped generally in terms of generic functions: Architecture; Research; Art; Urban Planning; and College. All elements were then connected, by a series of lines and arcs, to the other elements of the College to which they bore specific relationships. Lines of varying thicknesses indicated whether the relationships between elements were primary, secondary, or tertiary. No line connection meant, of course, no necessary relationship.

The JCOC members were most intrigued with this aspect of the study. From it they could trace the relationship of the Urban Planning Studio for 30 finding that it will bear a secondary relationship to the lecture hall, certain faculty offices, and multi-purpose studios, but none at all to Art Department functions. They could tell from other keys on other variations of the diagram that certain elements required major vehicular receiving access such as Research

and the Environmental Lab.

They could determine that the plan called for certain shaded areas (primarily photography, painting and art studios) to be positioned for desired indoor-outdoor relationships.

The beauties of this type of presentation, in the eyes of Langius, Roeger, and the JCOC members, arose from its pertinence. It allowed them to ask the meaningful questions without having to dig. After a brief study of the diagrams they could get down to basic considerations; why a strong secondary relationship between all Architecture studios; why is sunlight needed in the photography studio; why vehicular access to the conference-reception area? They were not confronted with the problem of inferring their questions from schematics; they did not get trapped into nit-picking the design.

There were impressed by another aspect of this part of the presentation. Because no building had yet been drawn even provisionally changes effected at the review of this phase did not force a compromise of an existing design. When the library was shot down, there was no need to find "other uses" for the space it would have occupied. The space had not yet been designed into any building.

(4) Land Use Study.

Working with the 10-acre site assigned to the project by the University Planner, a proposed building area was mapped, with considerations to existing natural areas, existing and proposed service drives, and other structures. Sections of the land were included, showing several possible profiles that the building could occupy in relation to other nearby buildings. A small topographical study model was developed to test the site potential for square footage.

It was determined that the site could absorb a building of 600,000 gross square feet. Since the eventual gross square footage worked out to 210,000, the remainder of the land will be used temporarily for parking, and later for additional University buildings.

(5) Building Materials and Construction Systems Study.

A breakdown of materials and systems that are available for the construction of this building, this section provides JCOC with a detailed range, and cost spread, of the components that would be considered for ceilings; exterior walls; electrical; finish flooring; heating, ventilating and air conditioning; partitions; and structural systems. Although various specification combinations are presented within each category, no recommendations are made at this phase.

Following the above five sections, the preliminary planning study concluded with a redefined area tabulation and a one-page revised space relationship study. The Net Area tabulation showed slight revisions from the areas projected in the program statement (e.g. Lecture Hall up from 1,200 to 1,600 square feet, Student/Faculty Conference Room down from 1,500 to 1,050 square feet). But the overall total net area remained, as in the program statement, at 144,600 square feet.

The preliminary planning study was completed and submitted to JOC in February 1969. As indicated above, JOC was particularly taken with this method of study. With several reservations (like the oft-mentioned library cut), the study was approved, and funding was appropriated for the "final preliminary design" phase.

With all of the work areas and work stations so precisely defined, both in size and relationships, the function of the final preliminary design phase was to weld these units into one building and apply them to the site in the most appropriate manner.

Working with the University Building Committee, the architect moved from schematic "A" through schematic "T" before the eventual design was settled upon and executed, a three-tiered, two-story structure that tends to flow around a central knoll on the assigned site.

Thus, we have disposed of the design phase, a major portion of the architect's effort, in two short paragraphs. Not because the subject deserves so little attention, but because it deserves much *more*: qualified attention that cannot be brought to bear by a writer unschooled in the profession. A companion article delves into the why's and wherefore's of the design in relation to specific needs.

But we should explore here an underlying philosophy that strongly influenced the creation of the building. This philosophy was expounded during the interviews by Mr. Metcalf.

Displaying a candor that is refreshing in an educator, the thrust on Metcalf's comments was that "we really don't know how to teach," in *any* field, including architecture. Currently, the trend in most educational fields is toward more individual attention, greater "one-to-one" contact between student and professor. Both Architecture and Art have been far ahead of other disciplines in this regard, with 50% or more of a student's time spent in studios with periodic, individual contact with faculty as resource persons.

According to Metcalf: "I tell students, 'we provide a space and a schedule; that's all.' I never even say we provide a faculty. . . it's only what a student decides to do. He goes to work. We have a place for him to work; and we have a schedule. And he has to meet certain requirements. Teachers are essentially resource persons he can ask questions of if he wants to."

Discussing a course he will be teaching next term, Metcalf explained, "I'm not going to meet on a regular basis at all. I'm going to . . . lay out their work for the term, and I'm going to be available certain hours for any of those who want to contact me. . . I'm not going to have classes in which I . . . show thousands of slides and [they] all go to sleep, [nor] tell them all I know about architecture because it is useless to them. Most of what I know won't be of any use to them."

"Primarily, all we're trying to do is get them to become very agile thinkers — to think about a problem as being multi-faceted, very intricate. They're going to have to attack the whole . . . problem." But where is education going in the future? What techniques will be uncovered to make the learning experience more effective? Metcalf is frank to admit that the answer is not yet apparent.

And precisely because the future physical format of education is so uncertain, one of the primary criteria for design of the building has had to be total flexibility, capable of adaptation over the next 40 years as more is learned of the intricacies of the mind and how it absorbs learning.

If it is eventually determined that the learning process takes place more effectively in a 36-square-foot cubicle, the building should be adaptable to 36-square-foot cubicles. If it is discovered that an agile thinker can be better trained in lecture halls twice as long as they are wide, or that students absorb more while sitting on cushions on tatami mats — the building should be able to accommodate these conditions.

Hence, the building was to be designed with a strong workshop flavor, and to utilize space, big spaces, straightforward areas with ultimate flexibility to suit the building to unknown changing needs that will occur during its life expectancy.

The design of the building was completed and submitted to the Building Division and JCOC in February, 1970. As approved the project then moved into the working drawings phase which at this writing is nearing completion.

In possibly one-and-a-half to two years, Architect candidates will be moving into the new structure. They will learn *about* architecture within a facility that has had an intriguing architectural history even before it has been built.

So let the debate begin. ♦

The Architecture and Design Building at The University of Michigan houses three departments; Architecture, Art and Urban Planning which constitute the College of Architecture and Design. Like few other Colleges within the University, the majority of courses in the respective professional programs are taught within this building, particularly in the advanced classes.

Two major influences on the design were established by the Faculty Building Committee at the outset. Number one, the building should express a workshop atmosphere, the traditional sense of an atelier should be characterized in the treatment of space, and building materials. Secondly, a strong relationship between indoor and outdoor work spaces in the majority of the teaching areas established a building of as few levels as possible, some even suggesting a single floor solution.

Other characteristics of the program indicated some natural division between departments, yet functional demands of each such as Teaching Resources, Shop, Classroom, Exhibition and Administration resulted in a centralized all College area.

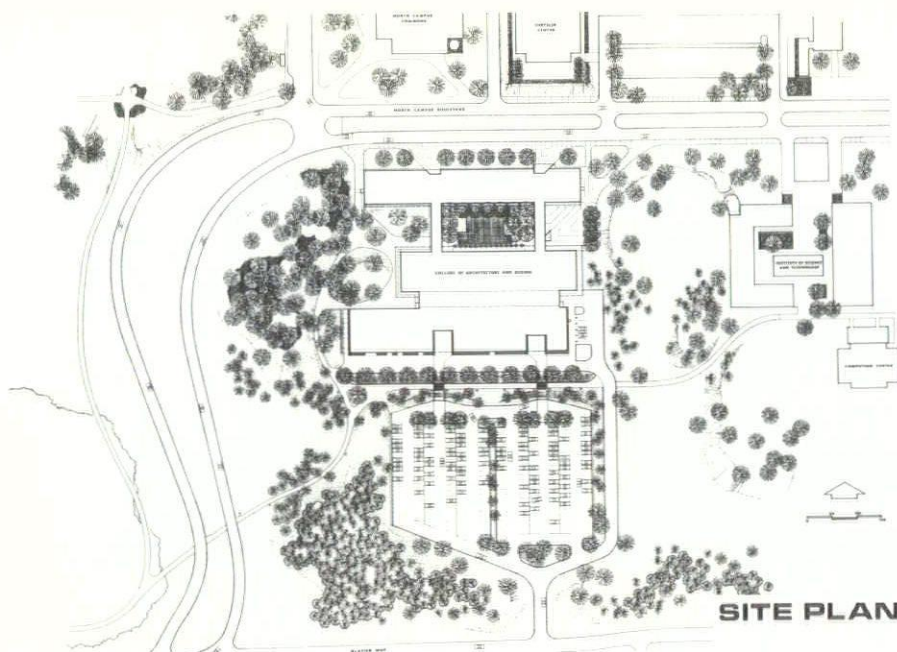
Because of the highly specialized faculty involved throughout, their offices are generally distributed near their teaching area.

Since a new North Campus General Library facility will be located nearby, it was decided to house the Architecture and Design collection in it.

A philosophy underlying much of the design of this building is that it should be a simple statement suitable for exhibiting and even advertising the things that are created within it. In order to do this successfully, it is necessary for people to flow easily through it, observe and react to things done and being done.

Many site potentials were explored both on the central and north campuses of the University in Ann Arbor. There was strong support for a location on the central campus by both student and faculty because there was "Where the action is". However, a north campus site was eventually selected because of long range campus plan implications. The relocation of the College of Engineering to the north campus was imminent and would establish the professional colleges and research on that campus.

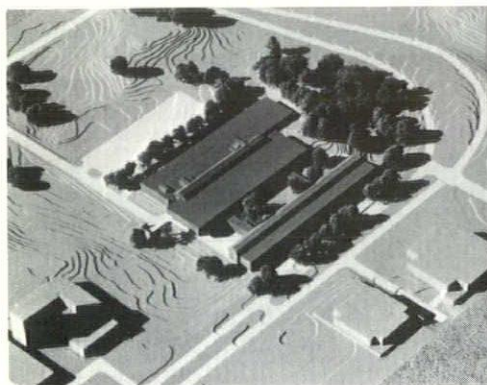
Eero Saarinen's School of Music is situated immediately to the northwest, the North Campus Commons and Chrysler Center are directly north and the Institute of Science and Technology and Computer Center are to the east.



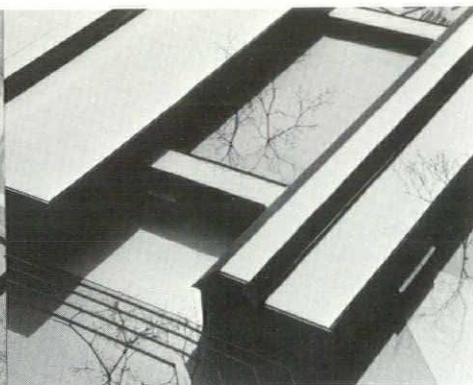
SITE PLAN

ARCHITECTURE AND DESIGN BUILDING THE UNIVERSITY OF MICHIGAN

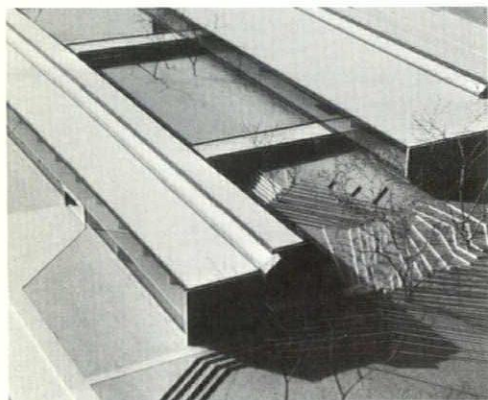
SWANSON ASSOCIATES INC ARCHITECTS ENGINEERS PLANNERS
BECKETT JACKSON RAEDER INC SITE CONSULTANTS



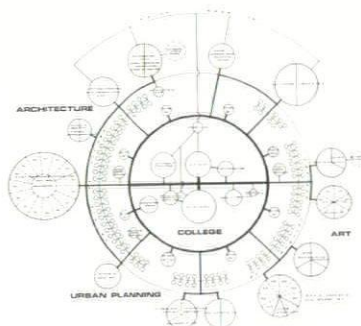
SITE MODEL



EXHIBITION COURT



DESIGN STUDIOS



SPACE RELATIONSHIPS

The site of approximately eleven buildable acres has a gently rolling quality. Studies indicated a potential of at least 600,000 gross square feet, so that the initial building should occupy about a third of the buildable area. Parking would ultimately be located in a structure off the site and was a temporary consideration.

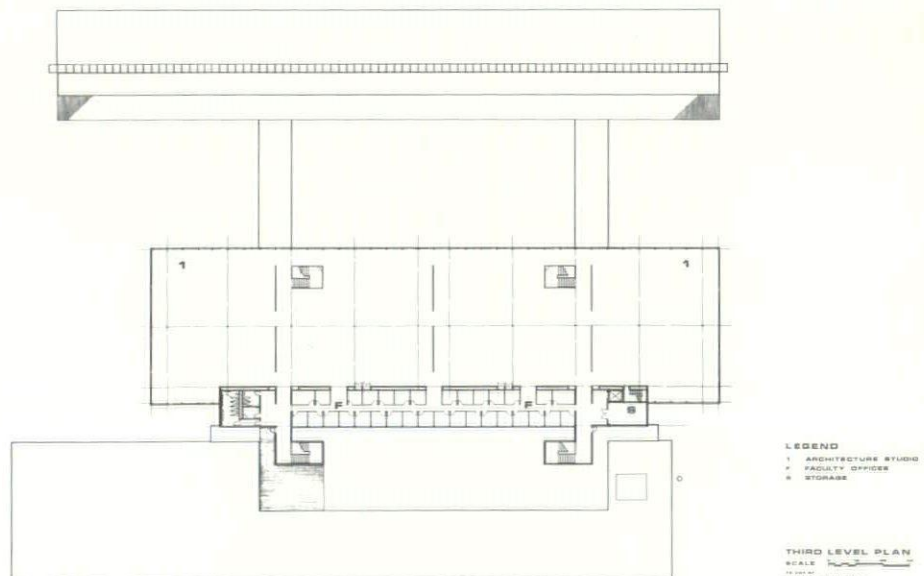
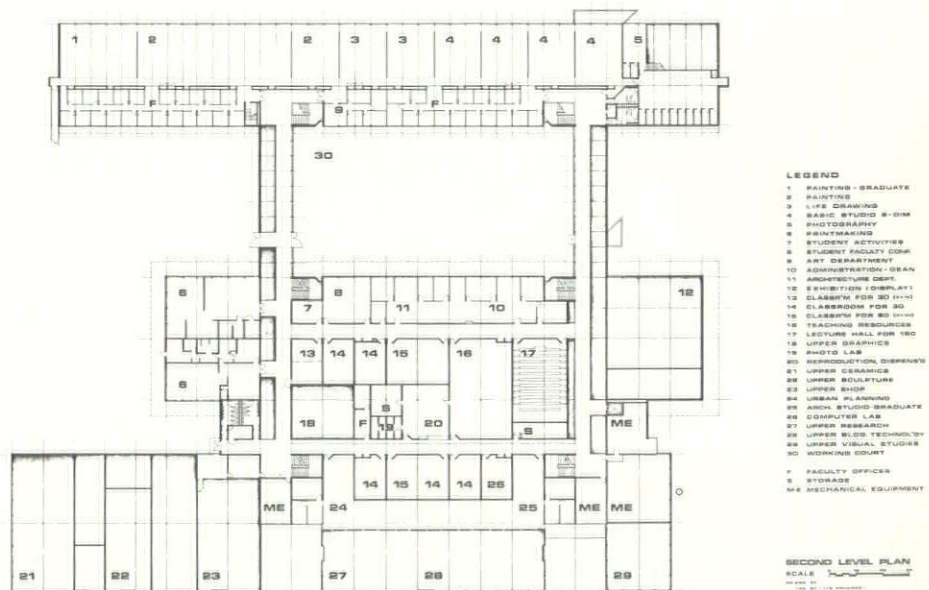
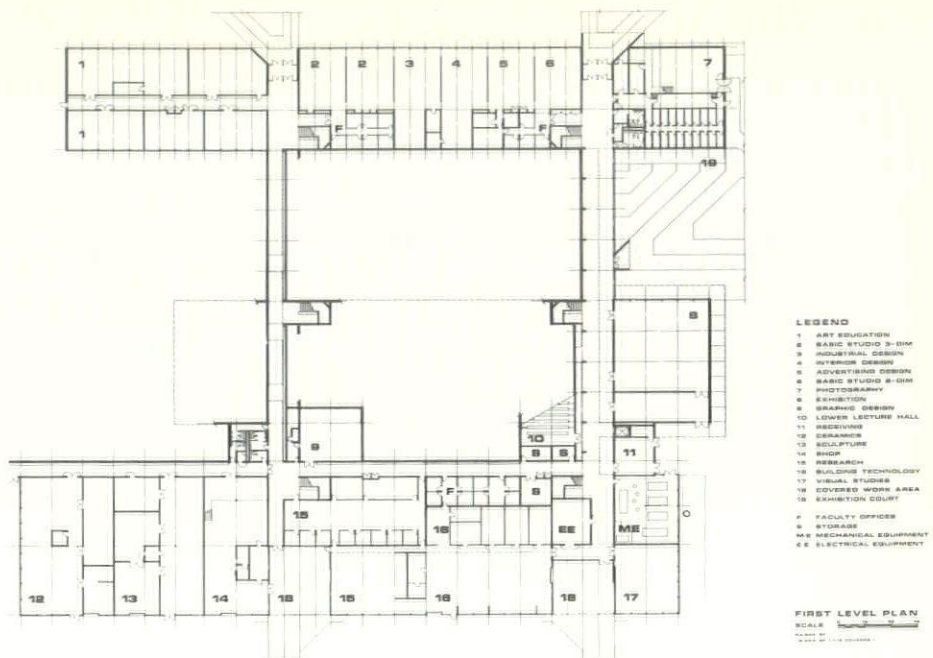
A knoll on the northern portion of the site offered several desirable potentials and was chosen. The change in grade allowed direct access into the two major levels of the building. The wooded hillside to the west introduced a landscape suitable for outdoor classes in painting and drawing; the broad open space to the south would be appropriately screened and could accommodate the clutter of activities such as sculpture, shop, building technology and research. All of these required direct access to the service road approaching the site from the south.

A new provision in the State Fire Marshal's school building code allows unprotected construction of up to two stories in height if the structure is completely sprinklered. The dividends of this provision are numerous and enabled us to provide some desirable features in the planning such as the elimination of fire barriers and stairway enclosures and resulted in a substantial savings in cost. However, more importantly we were able to retain the workshop or semi-industrial quality of the building without resorting to the usual cover up with plaster, fire rated ceilings and the like.

SOLUTION

The plan organization developed into three rectangular elements (A, B and C reading from the north down), each of which could be expanded in an east or west direction. These were connected by two circulation spines which joined the boulevard to the north and the parking to the south and formed four entries to the complex. Each element consisting of two or less stories is joined so that the center unit is offset by one floor level to accommodate the knoll. Thereby, we satisfy the Fire Marshal's requirements and yet have a three level structure. The north-south circulation as it passes through the center element is two floors high as are other spaces on the lowest level such as the Exhibition Area.

The two levels of the A unit (northern) are occupied by the art department studios. Maximum advantage is taken of the northern orientation with high ceiling spaces with uninterrupted



glass. On the upper level, the natural light condition is supported by continuous skylight at the back of the studios. Faculty offices line the south side primarily on the upper level. Art Education classrooms which are primarily a service function for the College of Education are located on the lower level convenient to the bus loading area to the west.

The Photography Studio occupies two levels at the east end, has a north light requirement and also relates to adjacent design studios.

The B unit (center) houses the main Architecture Drafting Studio on the upper level. Here again advantage was taken of the orientation to provide optimum natural lighting conditions. This single space 360' x 90' x 15' high was developed because it offered the ultimate in flexibility for internal division into almost any configuration to meet the changing program conditions. Associated faculty offices border the drafting area on the south.

In the mid-level are elements that are utilized by all departments; College Administration, including the Dean's office, Departmental offices, a Student Faculty lounge, Teaching Resources (including audio visual facilities), general classrooms and a 150 seat Lecture Hall.

The College Exhibition area, a high, flexible space, entered from the lowest level relates to the Lecture Hall and College Administration. It faces on an exterior display court to the north. This then becomes the publically oriented area of the building. An entrance from the display court provides a ceremonial function for important exhibitions and lectures. The north wall of the court is designed as a projection screen for use by the growing emphasis on film as a design medium.

The enclosed court yard at the mid level formed by the two circulation links and the A and B units serves several purposes. Primarily because of its

security capability, it can be used for permanent collections of Sculpture and architectural displays and it will function as an outdoor classroom workspace and lounge area. Service access from the west is achieved by using wide doors in the link.

The west end of the C unit in the complex contains the Sculpture and Ceramics studios and the College shop. The Building Technology and Architectural Research areas in the center of this unit relate by vertical circulation to the architecture drafting studios above. At the east end is a highly specialized Visual Studies area requiring several orientations.

The heavier users of the shop facilities have been located on the lowest level throughout the building.

This unit is the most industrial in character and function. It consists, primarily of, high ceiling spaces except for a mezzanine level which contains the Architecture Graduate and Urban Planning Studies which relate on a program basis to research below and the main drafting room above.

Two protected work areas are located at entrances which can be used for a variety of different functions that require a workspace for large constructions.

A building receiving area is located adjacent to the service drive to the east. It is convenient to the elevator which serves all three levels. The major mechanical equipment areas and the exhibition space open directly on to the loading platform.

The structure of the building is a steel frame supported by a reinforced concrete foundation. The floor and roof deck are steel which are to be perforated in most areas to provide reverberation control when used in conjunction with a sound absorbing filler. This is essential because of the predominance of hard surfaces within the building.

The building is clad in a simple

palette of materials, glass, brick (a sand mold buckskin as a tie with other buildings on the north campus), and an insulated metal panel faced with weathering steel.

Most of the interior will be a study of basic building materials; the exposed structural frame and deck, painted white, concrete floors, and unpainted block. The air distribution ductwork and sprinkler lines resolve themselves in conjunction with suspended fluorescent lighting into an organized grid reflecting a basic 10 foot module throughout the building.

The faculty and administrative office areas will have a suspended integrated ceiling and a movable partition system in order to satisfy the potentially changing requirements.

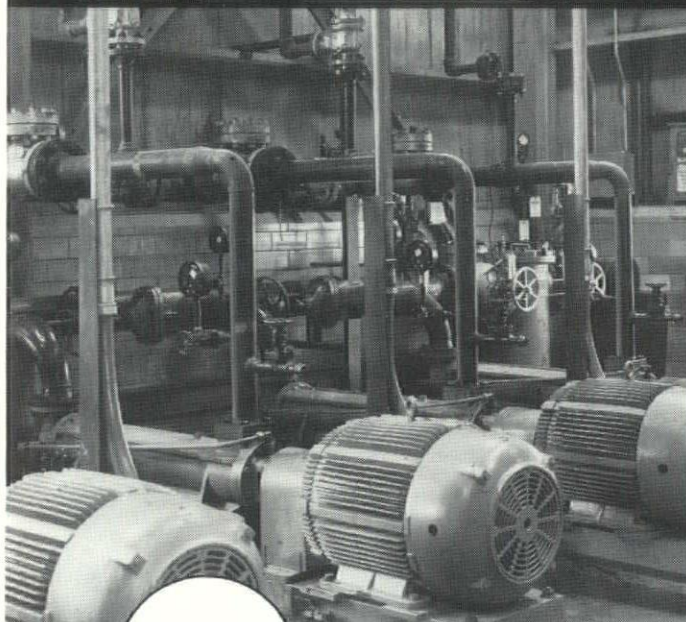
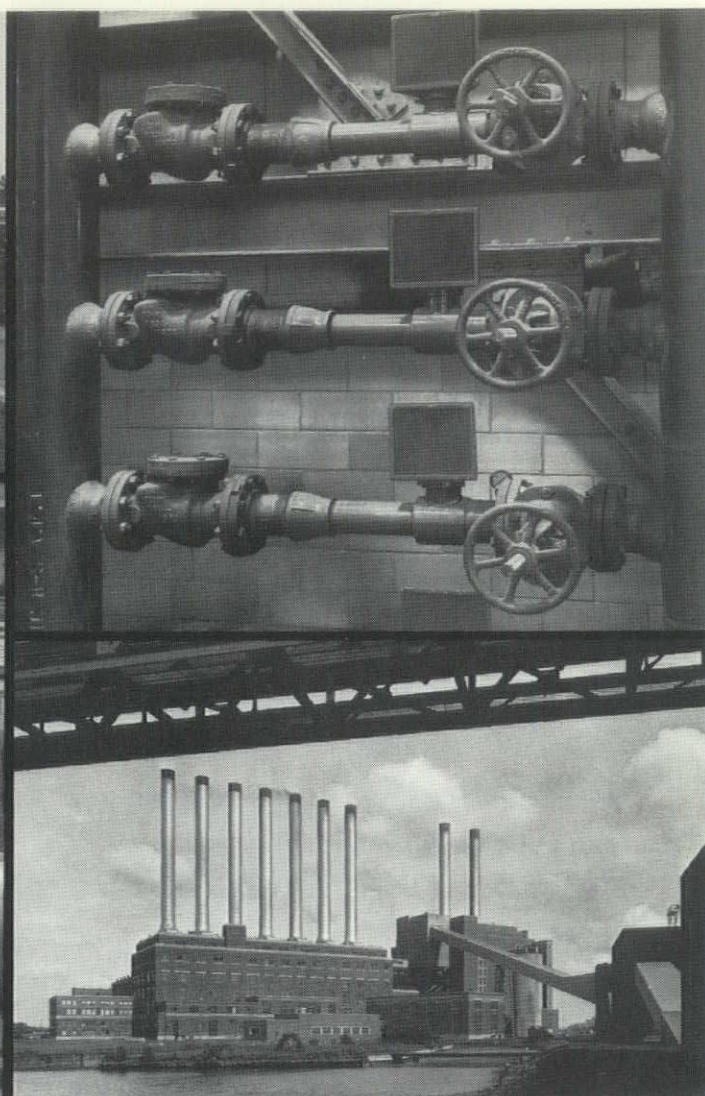
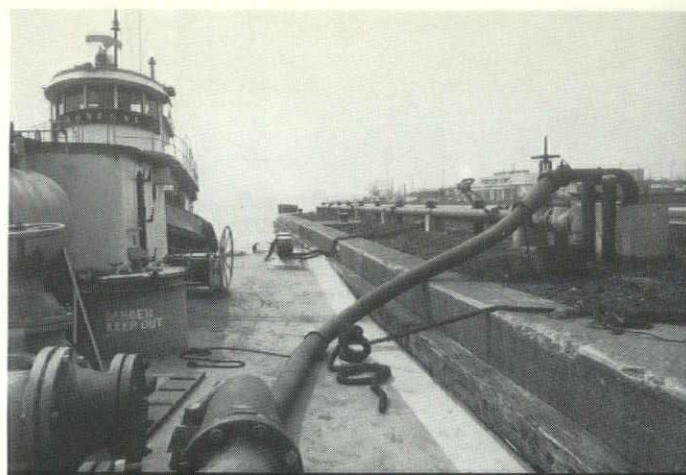
The building with its variety of spaces, yet having a straightforwardness of construction and use of materials will act, hopefully as a demonstration of building techniques for the architectural program.

Gas fired boilers will provide low pressure steam for absorption type cooling units, heating coils, and hot water heaters. Converters will provide hot water for perimeter radiation. Chilled water will be distributed to the air handling units.

A continuous mechanical penthouse provides the air distribution source for the A and B units. The air handling system is composed of economical package single and multizone units which will provide zone control to most areas.

The C unit because of its varying requirements, will be handled by two fan rooms plus some air distribution and exhaust systems suspended within specific spaces.

The lighting system will be primarily fluorescent and mercury vapor except for the exhibition, display and other areas with special requirements, would have varying combinations of fluorescent and adjustable incandescent. ♦



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University of Michigan College of Architecture and Design

Robert C. Metcalf AIA

The student beginning his study of architecture at the present time will face in his professional lifetime an unprecedented rate of change in the transformation of the man-made environment. In the next 40 years it is expected that we will build the equivalent of all our existing structures to meet the needs of an expanding population, increasing urbanization, and the replacement of obsolete and deteriorated structures.

During this time, the forces of social and technological change will present to the architect an environmental context for design of far greater complexity than ever before. Whether the magnitude and complexity of the problem will produce chaos, regimentation, or a richly diverse and varied humane environment will depend significantly on the professional qualifications of the environmental designer as architect, landscape architect, planner, or engineer. The design professionals, along with their associates in business, law, government, the social and natural sciences, and the general public, must in the coming years establish the goals and means of achieving a desirable man-made environment.

The architect specifically must be broadly and thoroughly prepared to discern the nature of the human problem in its environmental context, have control of the available technology in physically realizing solutions, and possess the intellectual and artistic skills for ordering the complex information into relevant and expressive design solutions.

The architect's role is not likely to remain fixed or static. While preparation for architectural practice will remain dominant, major roles are open in research, industry, government, and education. Within each of these roles, the architect's interest might lie in a wide range of possible scale involvement, from that of building components and

systems to that of urban design. Relative to actual task performance, his interest may involve administration, production, supervision, and consultation, as well as design.

The program in architecture recognizes the multiplicity of future roles of the architect and offers a choice of course work sufficiently broad and basic to serve as a foundation for any later specialization in graduate work or professional apprenticeship. Whatever role the architect may eventually assume, the educational program is designed to prepare him to perceive the ordered relationship of man and his environment and to translate this order into designs for the physical environment.

EDUCATIONAL PROGRAM

The main objectives of the educational program are to develop in each student the ability to:

- 1) **DISCERN** — the nature and dynamics of man-artifact-environment relationships;
- 2) **ORDER** — the information relevant to a problem so as to make sensitive and systematic use of it in the design process;
- 3) **APPLY** — methods of research, analysis, and synthesis appropriate to development of problem solutions;
- 4) **UTILIZE** — all applicable and potentially available techniques and technology in the proposed physical realization of projects; and to
- 5) **CONTRIBUTE** — through research oriented studies to expansion of knowledge relating to man-environment relationships and the technology of construction.

The achievement of these objectives should permit the graduate;

- 1) **TO WORK** — imaginatively and effectively under existing conditions and restraints;
- 2) **TO ADAPT** — and renew his abilities to meet new and continuing changes in the aesthetic, philosophical, social, economic, political and technological setting of society; and
- 3) **TO CONCEPTUALIZE** — long range solutions to environmental problems beyond the constraints and capabilities of the present, to give purpose and direction to his adaptability.

The educational program consists of a two-year Pre-Architecture program taken in The University of Michigan, a junior college, or any other accredited school offering liberal studies, and a four-year Professional Architecture program offered in the Department of Architecture.

It is the objective of the two-year Pre-Architecture program to develop a diversified, mature, and motivated group of students, through required and elective courses in natural sciences, mathematics, humanities, and social sciences. Our faculty believes two years collegiate experience in liberal studies is essential as a broad base upon which a student may build a successful professional career. Architectural studies are not introduced during this period in the belief they tend to monopolize the student's time and energy, and lead him to neglect essential preparatory work.

The first two years of the four-year Professional Architecture program is characterized by a highly structured sequence of concentrated studies covering the basic body of knowledge. A fairly uniform emphasis is placed each term on architectural design, communication and graphic skills, visual studies, structure, environmental technology, construction and the history of architecture. The use of the computer is introduced in the second year. During this two-year period of core studies, students are grouped into

sections, with a team of faculty representing the various study areas assigned to each section. Insofar as possible, all work during each term is presented in the context of a particular problem area.

During the last two years of the Professional Architecture program the student is presented with considerable choice in both professional and general courses to permit greater depth of involvement in selected areas. The intent is to permit and encourage development of a diversified group of professionals equipped to pursue careers over the broad range of architectural practice, research, industry, education, and government. Each student is expected to develop his own program, with both faculty and student counseling available to provide information on the resources available within the University.

Students who satisfactorily complete the two year pre-architecture program and the first two years of the professional architecture program are eligible for the B.S. Degree.

It is evident there are job opportunities available to those students who leave the program at this point, especially in industry.

Certain minimum requirements have been established for acceptance of students into the final two years of the Professional Architecture program. Upon satisfactory completion of all requirements, the degree Master of Architecture will be conferred. A concurrent award of the Bachelor of Arts degree is possible for those students who elect a joint program in liberal arts and architecture.

The new two-year Doctor of Architecture program is intended to further the development of highly qualified professionals for careers in architectural research, education or practice in the decades ahead. As a professionally

oriented research program, it stresses the evolution of new knowledge and new areas of professional specialization to serve the needs of a rapidly changing society. Academic study on a doctoral level is viewed as a platform for personal development rather than a mere extension of undergraduate education. The range of study and research available to D.Arch. students is broad and flexible. Within this range each student is free to chart his course of development according to his own specialized needs.

Research and education cannot properly be separated. Their common purpose, moreover, should be problem-focused, with emphasis on people—their need and desire for a satisfying life in pleasant and rewarding surroundings. The choice of program offerings available to the student at Michigan provides an opportunity for new and imaginative effort and educational innovation. Work-study programs may be effectively utilized at this level, as our experiments in community assistance programs have shown during the past two years.

The ultimate purpose of any institution should be useful service to the society in which it exists. Generalized goals and specific objectives delineated by the institution should reflect this aim and guide the development and use of resources to this end. In light of this, the Department of Architecture during the past year has prepared a long-range master plan of development for the period 1970-80, detailing objectives for the educational programs, the research programs, and the service programs, only a portion of which has been outline above. There have been many contributions to this document from students, faculty, and members of the profession. The continuing dialogue over the past several years has not been fruitless. ♦

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Lawrence Institute of Technology School of Architecture

Dr. Earl W. Pellerin FAIA

Lawrence Institute of Technology is a private college founded in 1932 and located on an eighty-five acre wooded site in Southfield, Michigan. The program of study in Architecture has held an important place at LIT from the very beginning and became a School of Architecture in 1962. The other schools at LIT are the School of Engineering, the School of Industrial Management and the School of Arts and Science. All programs in the above schools are four year programs leading to a Bachelor of Science Degree. These curriculums are also offered in the evening on a six year schedule. In addition, six programs of study in Technologies are provided in the evening Technical Institute Associate Degree Program. The Lawrence Institute of Technology is a member of and accredited by the North Central Association of Colleges and Secondary Schools.

The objective of the School of Architecture is to impart to the student an understanding of his professional, social and personal responsibilities, and to equip him with the means of meeting successfully the obligations they impose. The School, therefore, provides the environment in which the student can gain a basic knowledge of his profession and be realistically prepared for its proper practice. The study of the natural and social sciences, interrelated with the content of professional courses, is directed toward the balanced development of his total capacities.

The education of an architect requires, along with technical and liberal knowledge, a full development of his creative powers. The primary object of the design program is to help the student develop concepts and disciplines

which will enable him to create the most satisfying environment for the various levels and areas of our society.

The courses in design are not intended to develop any particular style or establish an aesthetic dogma but rather to foster perceptiveness and the capacity for analysis and synthesis. This teaching philosophy leads the student toward fresh creative work, responsive to the social and physical needs of society.

The School of Architecture places a special emphasis on a close relationship between students, faculty, alumni, the practicing profession and the American Institute of Architects. The most important part of these relationships is the individual and collective participation of the students in a broad realm of architectural involvement. In addition to enthusiasm, scholarship and relevance of subject matter, a dimension of professionalism is brought to the classroom by those who teach since many are practitioners in Architecture and related fields.

The School of Architecture, faculty members and the Student Chapter AIA participate in the local, state, regional and national activities of the American Institute of Architects. Strong student initiative reinforced with enthusiastic faculty support has established a year-round work program for the Student Chapter AIA involving a study of the total environment. The Student Chapter undertakes actual design problems of specific sites in urban blighted areas and, of course, is fortunate to have the whole greater metropolitan Detroit area at its door step for study and use as a workshop. These studies include research and development with special attention to social, philosophical, design and economic implications. The Chapter has been actively involved in zoning studies, urban-social-political analysis and government financing. Involvement in the areas of human and natural ecology has led to special programs dedicated to the development and retention of Park Areas. The Chapter also sponsors an annual schedule of speakers, seminars and discussions on Architecture, covering such topics as the team architect, the master builder, communications and transportation, new cities, public relations and the tremendous population growth. The School of Architecture and the Student Chapter has had considerable communication with government agencies, planning commissions and housing authorities with excellent results. The press, radio and television have actually played an active part in seminars, community exhibit-discussion events and televised programs. All of these experiences have brought about an awareness and new understanding of community problems. A relevant series of field trips occurs every year in which Architecture and urban planning are reviewed in many of the better known cities of the United States and Canada.

Like most schools of Architecture, the programs and objectives of this department, within the framework of a private college, are constantly undergoing close examination and discussion. During the past two years, committees involving faculty, students, alumni, practicing architects, authorities from other colleges and related fields and people from the construction industry have done much research and work towards the continuing growth of a program that would relate in total to a rational building of man's environment.

These studies involve expansion of the curriculum, analysis of its physical needs and a more complete integration of the various areas of study. This expanded program is considering additional work in the following areas: environmental studies, landscape architecture, interior design, computers, building systems and special electives. The final objective of this research and study would provide an inspired Philosophy: and a program relevant and dedicated to a total commitment to serve the vital role in which Architects must participate in tomorrow's world.

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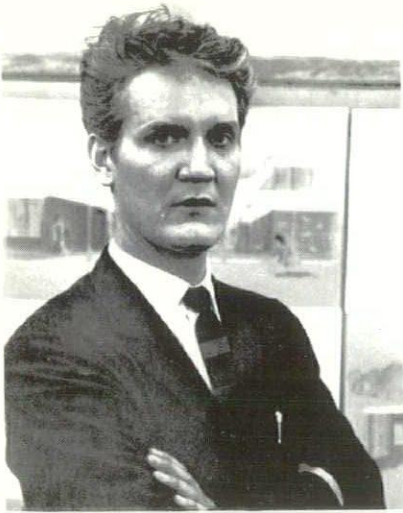
Ask Mr. Charles Bayless, Heat Treat Superintendent at Formsprag, why they chose electric—not once but five times—and he'll summarize by saying that electric furnaces are the modern way to gas carburize. That, for Formsprag, initial cost is roughly the same as gas; maintenance cost is manifestly less. That a heat treat bay will be cooler and cleaner. That, by comparison, electric furnaces add nothing to our air pollution problem.

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University of Detroit School of Architecture

Bruno Leon, Dean

Four years ago we, at the University of Detroit, were asked to state our objectives. It is revealing to reread that statement in order to see if the ensuing passage of time has placed that set of objectives out of focus. It seems clearer now than then that these objectives were more out of focus four years ago because they foreshadowed the evolving recognition of the critical nature of our environment to human welfare. Therefore, it would seem appropriate to restate, at the beginning of this article the philosophic and educational objectives we espouse.

The aims of the School of Architecture are predicated upon the belief that there are universal principles in architecture. These principles we believe to be valid because they derive from the nature of man, his psychology, his intellect and his emotions. We believe that architecture, or any other art form, is not a thing upon itself, but that it has social responsibilities. We believe further, that these disciplines are means to an end which is the expression of the spirit of man, and that this expression should be oriented towards a definition of the environment in such terms as to enlighten understanding of the unique values of life. This implies more than training in the technical aspects of architecture and we take recognition of this fact.

We reject mechanistic-technological orientation for their own sake but we equally reject spurious philosophies which would deny these social forces. We view these factors as the most significant tools in our vocabulary and stimulate a fundamental understanding of them in order to direct and implement them in keeping with a philosophic base that recognizes human values as the motivation.

We believe that an architect must be an individual with

interests that encompass the entire range of significant activities which are related to the human condition. The man of broad principles rather than the one who is dissolved in details is the person we wish to stimulate. The person who realizes that architecture is his method of symbolizing values for all men rather than an esoteric few is the one we support.

The School of Architecture's program does not ignore the various technical disciplines necessary for effective responsibility. We take due recognition of fields such as structures, mathematics and other sciences. However, we emphasize these as our tools rather than our aims and we assert that these activities are creative when understood in terms of principle rather than in terms of stereotyped application.

Simply stated, our program is based upon the idea that there is an inter-relationship in all creative areas; and it avoids consideration of building in isolation from the social organism and therefore, of human values.

To claim that we have been totally successful in accomplishing our objectives would be untrue. However, I think it also fair to say that the spirit of those ideals has been consistently evident in the work of the School of Architecture. This is the foundation upon which we continue our efforts to proceed towards the future.

In keeping with our understanding that architecture represents a conceptual overview of the organic entity called human condition, we have reflected this in our curriculum structure as well as in our procedures of project evaluations. Certainly, out of the confusing attitudes evolving from the revolutionary trends in the art, one fact stands out. This is that the nature of the art cannot be a service technic or specialization whether of pragmatics or aesthetics, as conceived by practitioners, educators and the public at large not too long ago. It must deal with all facets of existence which affect the human condition and in this sense architecture can be considered the greatest of the humanities.

The program has been in continuous flux since its inception nine years ago and this has been reflected in curriculum revision as well as faculty structure. The change in faculty background should suffice, in itself, to indicate the direction of our evolution. The presence on our faculty of a sociologist, anthropologists, corporate chairman, economist, urban planner and landscape architect are clear indications of our concern. The establishment of the R. Buckminster Fuller Chair of Humanities in Architecture and the addition of Dr. Fuller to our faculty as the first recipient of that chair will also serve to clarify our intent.

Finally, it has become increasingly clear that the responsibilities of the architect necessitates an extremely broader education than had been considered necessary in the not too distant past. Since the inception of our program we have attempted to encompass this with the structure of a professional degree program. Although there are justifiable arguments for this approach, the maturity essential for commitment in the field of architecture is not satisfactorily developed across the board. Therefore, the School of Architecture is again in the process of revision with the intent of providing a nonprofessional program in environmental studies and a professional program at the masters level in architecture. Through this process we will serve two purposes. On the one hand we will provide the basis of an essentially humanitarian program for those entering the professional program. At the same time we will provide the educational framework for many who will be entering other professional fields in terms of environmental concern. This we feel to be our responsibility since it is evident that all citizens, in varying degrees, ultimately share in the creation of the environment in which we shall either perish or flower.

NCARB Re-examines Its Exam

At its 1970 convention, the NCARB approved recommendations for new examination-registration processes for architectural students. Dean L. Gustavson, FAIA, immediate past president, here outlines their content.

One of the chief functions of the National Council of Architectural Registration Boards is to conduct studies of the examination-registration process and to report the findings to its annual convention. A fresh approach to this process, which included a liberalizing of NCARB and state board eligibility rules, the adoption of streamlined methods for achieving state registration and NCARB certification and an innovative examination procedure, was presented at the 1970 Boston convention by the NCARB Examination Development Committee.

The committee recommended the replacement of the current seven-part, largely technical examination by December 1972 with a new professional examination that will be administered to those candidates who have earned a degree from an accredited architectural school. For those students who do not have such a degree, a qualifying examination must be taken preparatory to the new professional examination. This procedure is clarified in the accompanying chart.

The rationale for this innovative procedure is based upon the recognition of professional education as providing those basic skills and the knowledge necessary to qualify a candidate to take a professional examination. The current seven-part examination developed in the need to test for mainly technical skills at a time when a majority entered the profession largely through an experience-only background, complemented sometimes by partial education but often with a lack of formal education and training.

Studies conducted over the past few years have proved that the quality of experience for the average college graduate was of varying value and sometimes represented a setback to the pace of professional development.

Even with this emphasis upon professional achievement and status through education, there will remain a small percentage of people who will continue to enter the profession with a variety of educational backgrounds, including partially completed degrees

or non-accredited ones, and differing experience situations. Therefore, a qualifying examination will be available to those candidates with the equivalent of eight years of education or experience. This examination will be available also to degree holders from other disciplines who enter the field of architecture by less than traditional paths and who have interested themselves in architecture by gaining experience and/or some architectural education. The qualifying examination will be a test to determine if academic knowledge and skills have been acquired equal to that of an architectural school graduate.

The report and recommendations of the committee were approved in Boston, and NCARB was directed to prepare models of these examinations and presentations for review at the 1971 convention.

The following outline is our present view of the content for the professional and qualifying examinations:

1. New professional examination: It is envisioned that this will be a test of professional judgment, emphasizing tactical considerations and decisions rather than technical ones. The examination will place the candidate in the role of an architect receiving the resource material for a major environmental problem. This resource information and problem outline will include also the many reports normally developed by associates and consultants. At the present level of our work—the concept level—we are looking to

the design of an objective, multiple-choice examination in four test areas.

Test A. Management, predesign: team formulation, process determination, scheduling, budgeting.

Test B. Predesign: data collection, data analysis, problem definition.

Test C. Design: alternative concept analysis, concept selection, concept development, packaging.

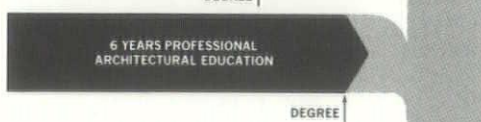
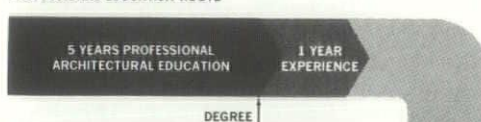
Test D. Management, construction phase: control of costs, control of quality, control of time, control of changes.

This examination is envisioned as one relatively comprehensive in scope but not unduly long in time. It is believed that the examination can be accomplished in 12 to 16 hours. It is thought that by such an examination the candidate will be tested in his ability to synthesize basic general knowledge of environment, human behavior, construction science, design and planning fundamentals, legal requirements, economics and management.

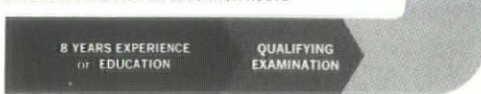
The emphasis will be upon the ability of the candidate to understand the implications of these tested areas and their relationships to practice and in turn to make valid professional judgments about how they influence environmental design. The present lengthy testing of technical material will not be included in this examination; rather, the new professional examination will aim to test the candidate's ability to use the outlines of technical information to arrive at practical solutions or strategies for solutions.

NCARB NEW EXAMINATION PROCESS

PROFESSIONAL EDUCATION ROUTE



EXPERIENCE AND PARTIAL EDUCATION ROUTE



NEW PROFESSIONAL REGISTRATION EXAMINATION

STATE REGISTRATION AND NCARB CERTIFICATION

2. *Qualifying examination:* This will emphasize the testing for technical information and will draw largely upon the present test for its subject matter, although reorganized and improved in grouping and content. Briefly, this examination will be broken down into the following categories:

- Architectural theory: history and theory of architecture; principles of planning.
- Construction theory: building materials, building equipment, structural theory.
- Design: design and site planning.

This will be a two-day examination.

Our view of the new examination process is not yet totally firm; our studies continue and we improve our ideas and our understanding. The coming year will bring further progress and we believe that by the time of the 1971 convention we will be able to present the first examination models for the new professional and the qualifying examinations.

We are attempting to communicate across a broad area of individuals, groups, architectural schools and professional organizations. By an enlarged input to the study from these many sources we are optimistic that a new meaningful, relevant examination can be developed. In the spring of 1971, a major progress report will be published in the AIA JOURNAL to communicate to the profession the activities of another year. ♦

Flint Architect Elected to City Council

A recently registered architect has been elected to a 2 year term on the Flint City Council. Gerald J. Yurk, AIA, 29, is the elected representative of the 25,000 residents of the 4th ward after a vigorous campaign which resulted in unseating the incumbent. Of the 9 seats on the Council, 6 are new and the majority are professional individuals bringing a new image to Flint's City government. York has also been appointed by the mayor and fellow council members to be the council's representative on the Planning Commission, which marks the first time an architect has held a seat on that Planning body.

After receiving his Michigan architectural registration in September, Yurk was named an associate member in the firm of Tomblinson, Harburn & Associates, Architects of Flint. He received a Bachelors Degree in Architecture from Lawrence Institute of Technology and did graduate study in Urban Planning at Wayne State University.

While at LIT he received numerous design and scholarship awards, was

active in the Student Chapter, AIA, was elected to Who's Who Among Students in American Colleges and Universities and represented the United States at the Pan American Congress of Student Architects in Bogota, Columbia. ♦

P/A Awards for 1971 Include two DC Members

The January issue of Progressive Architecture featuring the 1971 Design Awards include a Citation to the firm of Gunnar Birkerts and Associates and an Award to the Detroit City Plan Commission, Director, Charles A. Blessing, FAIA.

The Birkerts firm received Citation for the IBM-MIS Computer Center Facility Sterling Forest, N. Y., a 245,000 sq. ft. building to house large computer systems, support equipment and a staff of 762.

The Detroit City Plan Commission program for the comprehensive flexible system of approaching problems related to inner-city redevelopment with emphasis on the ability of the plan to work with and within the existing framework as presented in the Kit of Parts and Orchestra Place, one a large scale plan and one its sections. ♦

Wayne Grad Writes, Then Publishes

Some WSU graduates are downright eager to leave Detroit once they've earned a degree, but not Sheldon Annis. He decided to stick around after graduation, and finish his book, "Detroit, A Young Guide to the City."

Annis, 25, is a 1969 alumnus who majored in English and worked part time on the "South End" staff editing a column called "Phenomena." (The "South End" is the student newspaper, formerly called The Daily Collegian.)

Phenomena, a sometimes irreverent but always refreshing guide to food and entertainment for college students, led directly to the book.

How the book was published is a story in itself.

Annis and his friends on the South End staff reflected on the popularity of the Phenomena column and decided to incorporate what they had learned into a Detroit guidebook. They hoped to publish it in time to capitalize on the 1968 World Series, providing, of course, the Tigers cooperated by winning the pennant. Not having any money, they tried to get New Detroit, Inc., to finance the venture. The plan fell through, Annis said, when it was learned they would have to sign a contract turning the profits back to New Detroit.

Although that put a temporary damper on publication, Annis con-

tinued to work on the book, getting writers and artists to contribute to the effort on the basis that if he ever made money on it, they would be paid commensurate with what they contributed.

With the help of his friend Keith Clark, also a Wayne alumnus, and contributions from dozens of students, artists, reporters and photographers, Annis put together an unconventional, highly entertaining guide to Detroit.

But he still had to get it published, and he wasn't any better off financially than two years earlier.

Annis decided to publish the book himself and began getting price quotations from printers. He went to book distributors to find out if they would wholesale the book and managed to get an agreement from one of them to guarantee half the printing cost of a 2,000 copy order. He borrowed \$2,500 as a down payment on the printer's bill and he was in the publishing business.

Annis made a lot of contacts while editing his guide. Indeed, some of the chapters were written by persons working in the media. He added a lot of telephone calls and visits to writers and editors. What followed was a virtual plethora of favorable book reviews, plugs, columns, radio interviews and magazine articles—including this one.

But Annis didn't get the publicity

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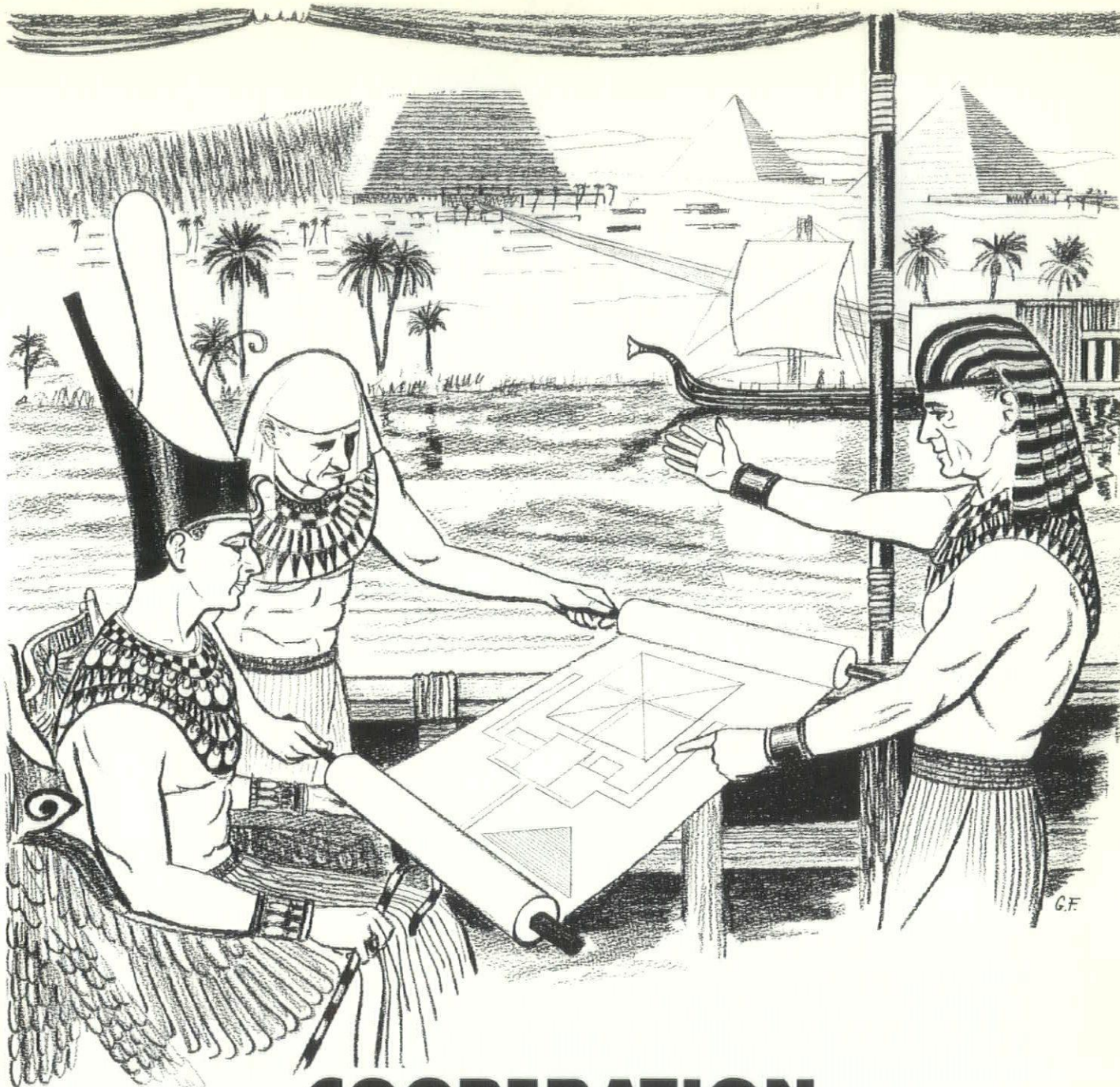
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because he's likable, both of which are true, but because he edited a guide to Detroit that's both useful and fun to read.

The Guide begins with four personal histories of Detroit—vignettes of the City provided by a labor organizer, a vaudeville singer, a black precinct delegate and a Jewish bar owner.

There's a chapter on food where a good restaurant is described as a spot where you shouldn't "be afraid to ask for a paper bag to take home what you can't eat," while another is cut down with "\$7 for a glass of waetr and if you want a drink you'll have to put it in layaway."

There are chapters on black Detroit, the hip underground, the ways to beat loneliness, and where to buy good things like used tires and burlap in colors.

And there's lots more. It's \$2.50 in paperback, and it is available from the MSA office. Order your copy now. ♦

Capitol Study In Favor of Restoration

The New York Architectural firm of Praeger, Kavanagh and Waterbury has concluded a study of the west front of the Nation's capitol and report that the Capitol "survives in relatively good condition attesting to the excellence of its builders and to the concern of those responsible for maintaining this, the

national monument to our republic."

The firm's call for restoration rather than extension was promptly applauded by Senator William Proxmire, D. of Wisconsin, one of the leaders for the preservation of the building.

The decision whether to accept the recommendation of the New York firm for restoration or to press for the extension plan rests initially with the seven-member Commission for the Extension of the Capitol. Members of the Commission are Mike Mansfield of Montana, D, Hugh Scott of Pennsylvania, R, Carl Albert of Oklahoma, D, and Gerald R. Ford of Michigan, R.

The money needed for the restoration is estimated at \$15 million as opposed to \$45 million for extension. The ultimate decision will rest with Congress as a whole.

We urge MSA members to voice their support of this study in favor of restoration by writing Senator Ford.

"The Capitol is 150 years old," the architects reported, "and should give the impression of venerable age, not a crisp newness that denies its historical background." ♦

Goodwin Joins M. K. Inc.

John Goodwin, Wayne State University architect and head of the Architectural and Engineering Services Department, has resigned to become

vice president of Markward and Karafilis, Inc., effective Jan. 18, 1971.



Goodwin, 42, joined the University staff in 1955 as construction supervisor. He became assistant director of Building Services in 1956 and assistant to Arthur Neef, vice president and provost in 1958. During his 16 years with the University, he managed \$80 million in new construction and \$7 million in alterations.

His memberships include: AIA and certification by the National Council of Architectural Registration Boards; the American Arbitration Association; Association of University Architects; Council of Educational Facilities Planners; Society of College and University Planners; Michigan Engineering Society. ♦

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"CERAMIC TILE PAYS FOR ITSELF . . ."

Detroit's Colony East Restaurant has a customer turnover of six persons per seat per day. With this kind of customer action, owner Clarence Kavan needed flooring and wall finishing materials that could be kept clean and sparkling with a minimum of work.

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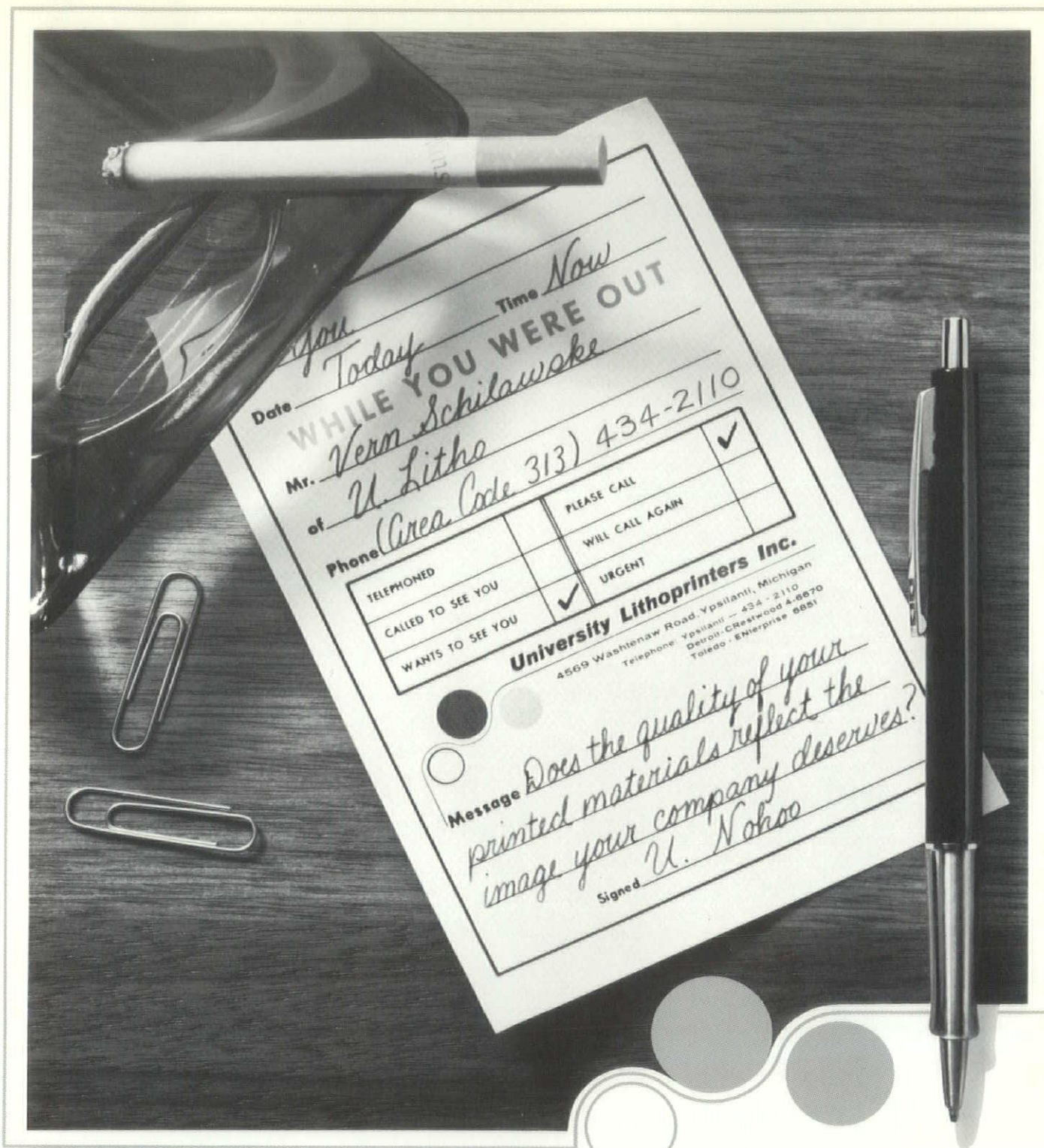
A ceramic tile contractor gave Mr. Kavan substantiated maintenance information. In a recent modernization, professionally-installed ceramic materials replaced asphalt tiles and covered plaster walls. Cleaning costs were cut fifty percent.

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CALENDAR

February 20	CEP Seminar "Modern management Techniques" by Louis DeMoll, FAIA, and William W. Abendroth of Pennsylvania Hospitality Motor Inn, Lansing, Mich.
March 17	Council of Educational Facility Planners Education- al Workshop Kellogg Center Michigan State University, East Lansing, Michigan Floyd G. Parker, Chairman
April 24	CEP Seminar Carl Tschappat and Paul Farrell will continue the first seminar entitled: "Real Estate Development Financing "Real Estate Development Financing & Taxation"
June 20-24	National AIA Convention, Detroit, Michigan

August 5, 6, 7	Mid-Summer Conference, Grand Hotel Mackinac Island
September 11	MSA Annual Meeting Lansing, Michigan

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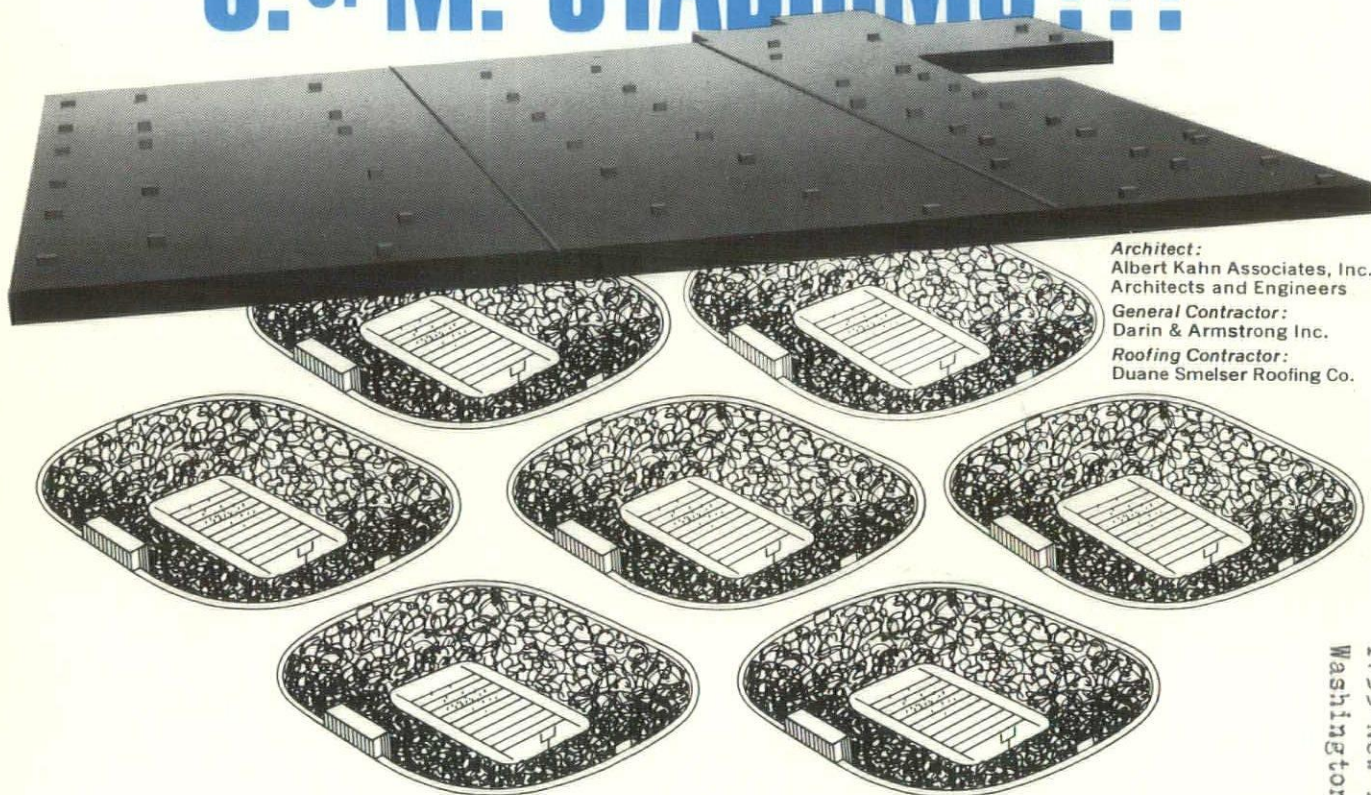
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